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### **REMARKS**

#### **Regarding the Specification**

The proposed amendments to the Specification made in Applicants' response to Examiner's Office Action mailed January 11, 2005, have been canceled.

#### **Regarding the Claims**

Claims 1-4, 6, 10, 12, 13, and 17-25 are pending in the present application. Claims 1-4, 6, 10, 12, 13 and 17-25 stand rejected. Claims 1, 4, 6, 12-13, 17, 22 and 24 have been amended. Remaining non-canceled claims depend on an amended claim.

Claims 1 and 17 have been amended to recite that the metal esterification catalyst an organic or inorganic salt of, coordination complexes of or organometallic derivatives of bismuth, lead, tin, titanium, iron, antimony, uranium, cadmium, cobalt, thorium, aluminum, mercury, zinc, nickel, cerium, molybdenum, vanadium, copper, manganese, titanium, or zirconium. Support can be found at page 8, lines 23-28. Claim 4 has been amended to recite that the metal esterification catalyst comprises manganese acetate, antimony oxide, lead oxide, tin chloride, tin oxide, a titanate, or a combination thereof. Support can be found at page 8, lines 32-35 and in the Examples. Claims 6, 12 and 13 have been amended to depend on Claim 4 instead of Claim 1. Claims 22 and 24 have been amended to depend on Claim 21 instead of Claim 17.

#### **Rejection of Claims 1-4, 6, 10, 12, 13, 17-20 and 22-25 under 35 U.S.C. 102(b) over Barda et al. (US 4,468,480), hereinafter "Barda"**

Applicant agrees with Examiner that Barda discloses preparations of aromatic polyester polyol compositions having acid numbers of 0 to 10 mg KOH/g, that is, inclusive of having an acid number below 3.0 mg/KOH/g. Applicant further agrees with Examiner that Barda discloses preparations of aromatic polyester polyol compositions prepared from species inclusive of non-alkoxylated aminoalcohols. At column 4, lines 27-39 in Barda, there is disclosed use of polyols containing at least three hydroxy groups, which includes triethanolamine at line 34.

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However, Applicant respectfully disagrees that Barda discloses preparations of aromatic polyester polyol compositions prepared from metal esterification catalysts. Examiner asserts the metal materials disclosed in Barda at column 3, lines 48-60 read on "metal esterification catalyst" as defined by the claims." Applicant respectfully disagrees that the metal materials in Barda are "metal esterification catalysts". First, Barda teaches adding "a basic material .. to neutralize any residual inorganic acid present" (see column 3, lines 48-51). Barda does not teach to add a catalyst. Barda states representative materials include alkali and alkaline earth metal compounds. Alkali metals are in group 1 of the Periodic Table, and include lithium, sodium, potassium, rubidium, cesium. Alkaline earth metals are in group 2 of the Periodic Table, and include magnesium, calcium, strontium, barium. None of these metals is mentioned in Applicant's specification as a metal esterification catalyst. Nonetheless, to further distinguish Applicants' invention from Barda, Applicants have amended independent claims 1 and 17 to specify those metals which are suitable as metal esterification catalysts.

It should be noted that the first mention in Barda of use of catalysts is in the preparation of polyurethane compositions at column 5, lines 35-49. Catalyst is mentioned at column 5, lines 44-45 along with optional blowing agent in the preparation of a polyurethane.

Rejection of Claims 21 and 1-4, 6, 10, 12, 13, 17-20 and 22-25 under 35 U.S.C. 103(a) over Barda et al. ("Barda") in view of Volkert et al. (US 6,331,577), hereinafter "Volkert"

Applicant agrees with Examiner that Volkert discloses use of esterification catalysts in the preparation of polyester polyols. However, Volkert fails to disclose or suggest use of non-alkoxylated aminoalcohols in the preparation of polyester polyols. Volkert further fails to suggest use of an esterification catalyst has any effect or is critical to the formation of polyester polyols having an acid number below 3.0 mg/KOH/g.

The Examples of Volkert disclose use of commercial polyether polyols in the preparation of polyurethanes. The Examples fail to disclose preparation or use of polyester polyols.

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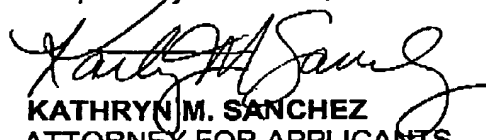
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Applicants draw Examiner's attention to Applicants' specification at page 2, line 34, bridging to page 3, line 17, where there is disclosed a discussion of use of non-alkoxylated aminoalcohols in aromatic polyester polyols (Zimmerman et al., U.S. Patent 4,442,237, hereafter, "Zimmerman"). Zimmerman discloses that when using a non-alkoxylated aminoalcohol, polyester polyols are prepared having acid numbers of 3 mg/KOH/g or higher. See also, Applicant's Example 1, page 18, based on Zimmerman, having an acid number of 5.1. A low acid number is preferred because the acid number reflects the number of free carboxylic acid groups in the polyol. Carboxylic acid groups do not react well with isocyanate and a polyurethane foam produced from polyols having high acid numbers are less dimensionally stable.

Zimmerman teaches addition of a non-alkoxylated aminoalcohol to a polyester polyol results in acid numbers of 3 mg/KOH/g or higher. There is no teaching or suggestion in Volkert that a metal esterification catalyst can lower acid numbers. Therefore, it is surprising that Applicants have found that an aromatic polyester polyol having an acid number of less than 3.0 mg/KOH/g can be produced by reacting an acid component, a glycol component a urethane catalytic activity agent that comprises a metal esterification catalyst as specified and a non-alkoxylated aminoalcohol.

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,



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### **INFORMATION PAGE**

#### **I. Amendments to Claims:**

All claims must be listed.

Claims not amended must be CLEAN.

Amendments are made by underlining (insertions), strikeouts (deleted).

#### **Status Identifiers that May be Used (Acceptable Parentheticals):**

In order to promote uniformity and consistency, only the following parenthetical expressions are the ONLY acceptable expressions to be used to indicate the status of the claims (in parenthesis after the claim number):

i. (Original):	Followed by the text of the claim as originally presented.
ii. (Currently amended):	Followed by the text of the claim as amended, in the manner discussed below.
iii. (Canceled)	Without the text of the canceled claim.
iv. (Withdrawn):	Followed by the text of the claim.
v. (New):	Followed by the text of the new claim, without underlining.
vi. (Previously Presented):	Followed by the text of the claim as previously amended, without indications of the amendments.
vii. (Not Entered)	Without the text of the claim.

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**Example of Listing of Claims:**

Claims 1-5 (canceled)  
Claim 6 (withdrawn): A bucket with one handle.  
Claim 7 (previously presented): A bucket with a handle.  
Claim 8 (currently amended): A bucket with a ~~green~~ blue handle.  
Claim 9 (withdrawn)  
Claim 10 (original): A bucket with a wooden handle.  
Claim 11 (canceled)  
Claim 12 (new): A bucket with plastic sides and bottom.  
Claim 13 (not entered): A black bucket with a wooden handle.

**II. Amendments to the Specification:**

Amendments to the specification are to be made by presenting replacement paragraphs, sections or a substitute specification marked up to show changes made relative to the immediate prior version, as set out in 37 CFR 1.121(b). The changes should be shown by strikethrough (for deleted matter) or underlining (for added matter). No accompanying "clean" version shall be supplied. The amendments to the specification shall be presented only one time, and will not appear in successive amendment documents.

**III. Amendments to the Drawings:**

Amendments to the drawing figures shall be made by presenting replacement figures which include the desired changes, without markings, and which comply with § 1.84. The changes shall be explained in the accompanying remarks section of the amendment paper. If the amended drawings are not approved, the applicant will be notified in the next Office action. Any amended drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure number in the amended drawing should not be labeled as "amended."